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**SYSTEM AND METHOD FOR SELECTIVELY EXPANDING OR  
CONTRACTING A PORTION OF A DISPLAY USING EYE-GAZE TRACKING**

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**ABSTRACT OF THE INVENTION**

A computer-driven system amplifies a target region based on integrating eye  
gaze and manual operator input, thus reducing pointing time and operator  
10 fatigue. A gaze tracking apparatus monitors operator eye orientation while the  
operator views a video screen. Concurrently, the computer monitors an input  
indicator for mechanical activation or activity by the operator. According to the  
operator's eye orientation, the computer calculates the operator's gaze position.  
Also computed is a gaze area, comprising a sub-region of the video screen that  
15 includes the gaze position. The system determines a region of the screen to  
expand within the current gaze area when mechanical activation of the operator  
input device is detected. The graphical components contained are expanded,  
while components immediately outside of this radius may be contracted and/or  
translated, in order to preserve visibility of all the graphical components at all  
20 times.